



**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

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Southern California Edison Company's)	
Application For Approval of Embedded Energy)	Application 07-01-024
Efficiency Pilot Programs for 2007-2008)	(Filed January 16, 2007)
Application of Pacific Gas and Electric Company)	
Seeking Approval of Water-Embedded Energy)	Application 07-01-026
Savings Pilot Program (U 39 M))	(Filed January 16, 2007)
San Diego Gas & Electric Company (U 902-E))	
for Approval of Energy & Water Efficiency)	Application 07-01-029
Partnership and Budget for Years 2007 Through)	(Filed January 16, 2007)
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Southern California Gas Company (U-904-G) for)	
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COMMENTS OF SOUTHERN CALIFORNIA EDISON ON PROPOSED DECISION

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COMMENTS OF SOUTHERN CALIFORNIA EDISON ON PROPOSED DECISION

I.

INTRODUCTION

Pursuant to Rule 14.3 of the Commission's Rules of Practice and Procedure, Southern California Edison Company ("SCE") hereby submits these comments on the Draft Order Approving Pilot Water Conservation Programs within the Energy Utilities Energy Efficiency Programs ("Proposed Decision") issued November 15, 2007.

SCE generally supports the pilot programs outlined in the Proposed Decision. SCE appreciates the collaboration between the parties in creating the pilot proposals and focuses its comments and clarifications to the following issues:

- The Lake Arrowhead Water Conservation Program would benefit from the participation of SoCalGas.
- The proposed EM&V Study Plan needs additional review.
- Both the timeline for program implementation and the process evaluation budget allocations should be flexible based on the investor-owned utility's best judgment and use of resources.

- The water-energy calculator understates the benefits to all parties.

II.

SOCALGAS SHOULD PARTICIPATE IN THE LAKE ARROWHEAD PROGRAM

The Proposed Decision deems the participation of SoCalGas' (SCG) in the Lake Arrowhead Community Services District (LACSD) Water Conservation program to be duplicative of SCE's efforts. SCE respectfully disagrees. The idea to add SCG to the SCE-LACSD partnership was advanced not by either investor-owned utility (IOU), but by a ratepayer advocate. It was a collaborative outcome based on lessons learned through the extensive workshop process conducted by the Commission throughout the spring and early summer of this year.

In January 16, 2007, SCE originally proposed this program as a bilateral partnership between SCE and LACSD. At the June 27, 2007 meeting, TURN and DRA proposed a three-way partnership between SCE, SCG, and the LACSD. This made sense because, through the workshop process, the parties learned that much of the water imported to the LACSD was lifted by natural gas-powered pumps. Also, including SCG lowers SCE's budget for this program by 50%, with no change to the overall size and scope of the program. For both reasons, the proposal was a good idea at the time. SCE believes it still is.

If the Commission decides to exclude SCG from this program at this time, at least two negative results will occur. First, the scale of the LACSD Water Conservation program will shrink by half because SCE's budget was reduced by 50% when SCG was added and has not been restored to the original proposed amount. Second, the best opportunity to obtain readily quantifiable embedded gas savings will be lost.

For these reasons, SCE asks that the Commission allow SCG to partner with SCE and LACSD and reverse the Proposed Decision to exclude SCG from the Lake Arrowhead program.

III.

THE PROPOSED EM&V STUDY PLAN NEEDS ADDITIONAL REVIEW AND INPUT

SCE requests more work before the Commission adopts any EM&V Study Plan. The Proposed Decision's revised EM&V Study Plan makes major changes to the joint utility-submitted plan. These changes have not been subjected to review by experts in water industry analysis, *e.g.*, for availability of alternative sources of data, cost, or suitability as compared to alternative analytical methods. The final decision should mandate that the Energy Division hire consultants with expertise in water usage measurement and analysis to assist in development of a final plan. This final plan should receive a similar level of review as the original utility plan – at a minimum, a workshop and final written comments before adoption by the CPUC. Alternatively, it should be subject to the same external review requirements as the CPUC's energy efficiency program evaluations.

The Proposed Decision states that “the studies proposed by the utilities alone are not likely to get us all the way” to determining if, in fact, it is cost-effective to save energy through programs that focus on cold water. See Proposed Decision at p.58. It also states that “taken together the proposals do not provide a clear plan for understanding how energy is used in the California water system.” See Proposed Decision at p.59. To remedy these deficiencies, the Proposed Decision develops and describes two additional studies that the utilities are to fund and Energy Division is to manage. This represents excellent analytical work by CPUC staff. However, it has not been subjected to a reasonableness, feasibility and cost review by people with extensive knowledge and experience in water system and water usage analysis. Comments made by parties to this proceeding cannot substitute for such a review, nor can they be expected to provide a revised plan that meets the Proposed Decision's stated objectives using best available existing data and optimal methods for new data collection and analysis.

The following paragraphs provide some specific examples showing why the EM&V Study Plan in the Proposed Decision should not be adopted as is. First, measurement should not be undertaken until a review establishes that the needed data have not already been collected in another study. Then, the first choice in measurement should always be to use lower cost alternatives unless or until they have been demonstrated not to work reliably. Instead, the proposed Study Plan often makes controversial and costly choices.

For example, measuring water use and changes in water use with in-line metering at the point of end use is the most controversial because it is the most costly approach of multiple options. The alternatives to in-line metering at end use include using readily available monthly water usage data (billing data), weather and other data, combined as necessary with relatively low-cost customer survey and even spot measurement data, in well-designed statistical regression analysis. In terms of cost, another intermediate alternative is non-destructive induction-based metering on total flow with analysis that uses flow trace signal analysis to infer end uses by their use profile.

Thus, for measures such as high-efficiency toilets, the original plan proposed a statistical billing analysis approach precisely because IOU's studies have demonstrated that this lower-cost approach does provide significant and reliable results. But in other cases, such as SDG&E's proposed Large Customer Water Audits Program, the plan proposed some in-line metering because the projects would be large and diverse enough to make the installation of such metering valuable and cost-effective for the customer.

The major cost-increasing choice is the revision of the IOU's Load Profile study design to require in-line metering to develop water use load shapes for four to six end uses in eight different market segments. At a conservative estimate of \$2,000 per site for samples of 250 sites in each of eight market segments, this study would cost \$4 million for data collection. In addition to these costs, in-line metering creates significant legal liability and financial risk on the organizations responsible for it. Inserting measurement equipment by invasive means creates potential liability for damage to water pipes and metered equipment as well, as water damage to property, due to any breakages or leaks that customers claim are caused by the installation and removal of the measurement devices.

The Study Plan does not reference a literature review or analysis that provides evidence that this expenditure is necessary. Such expense could be justified if it was documented that such information has not already been collected by water agencies or researchers and that a significant fraction of water-embedded energy cost is linked to the time of day in which water is used. In the absence of this evidence, the expenditure is not worth the benefits.

IV.

ALLOW FLEXIBILITY IN USE OF PROCESS EVALUATION BUDGET

SCE seeks clarification on the funding for process evaluations. Currently, it is equivalent to 2% of each utility's program budget. SCE would like the Commission to clarify that the limited funding for process evaluations:

- is budgeted for each utility in addition to the program budgets and their share of the budget for the CPUC's EM&V plan;
- is 2% of the total pilot budget (programs and CPUC-managed EM&V), not just 2% of the program budget; and
- each utility has discretion in allocating the limited funding across their programs.

There are multiple reasons for this approach to the process evaluation budget. First, the total funding for process evaluations of all nine programs is only \$69,658. This is inadequate to meet the Commission's goals, including Goals 3, 6 and 7:

3. Determining if, in fact, it is cost-effective to save energy through programs that focus on cold water;
6. Better understand what programs and measures are likely to save water and energy; and
7. Provide the basis for meaningful ex-post project assessment.

See Proposed Decision at pp.57-61 (restating Commissioner's February 2007 list of seven goals for the pilot).

Process evaluations are likely to be a critical component of answering those questions because impact evaluations will only provide cost and savings data for each very small program as it was operated. Unless a process evaluation component is added, the impact evaluations will not have the information to assess whether a larger program, operated differently, could be substantially more cost-effective.

Second, the alternative to having the 2% as an addition to total pilot cost is having some percentage of every program budget held back for process evaluation purposes, reducing program budgets from what was intended.

Third, the need for process evaluation will vary across programs, and the utilities need to be able to allocate greater funding towards the programs with greater needs. The 2% budget,

even if it is 2% of the total budget, is not enough to provide substantial process evaluations for every program because the program budgets are very small. For example, 2% of \$300,000 is \$6,000, which can at most provide a brief review, analysis, and report on one or two issues.

By granting IOU's an appropriately calculated 2% budget and flexibility over the budget allocation of the process evaluations, the Commission will go a long way to stretching limited resources in this pilot program.

V.

ALLOW PROGRAM ROLLOUT ON A FLEXIBLE TIMELINE

Allowing the IOU's flexibility in rolling out their programs will also allow the IOU's to stretch program dollars in this pilot and allow greater collection of data as soon as possible. The Proposed Decision directs the IOU's to implement the Water-Energy programs starting July 1, 2008. Some of the programs (those that have been unchanged or that have been vetted through the workshop process) can be launched immediately. Others, such as the Leak Detection program the Commission just directed SCE to offer in the Proposed Decision, will take more time to develop and implement. Therefore, SCE requests the Commission afford the IOU's flexibility to launch each program independently at any time between January 1, 2008 and September 30, 2008.

VI.

WATER-ENERGY CALCULATOR DOES NOT COUNT BENEFITS "TO ALL PARTIES"

SCE would like to clarify the Commission's assessment of the Total Resource Cost (TRC) values for SCE's proposed Water-Energy Pilot programs. The Water Energy Calculator was designed such that only the energy IOU's costs and benefits are reflected in the TRC it produces. In supplemental filings to its application, SCE has explained that a calculator that considered both the energy and water entity costs but only the local energy entity's benefits was not particularly useful as an assessment tool. SCE would encourage the additional refinement of

the water-energy calculator so that it can be a more useful tool in assessment of statewide water and energy costs and benefits.

In the meanwhile, the Commission states at page 45 of the Proposed Decision:

Based on the cost-effectiveness calculations submitted by all four utilities in their July 11, 2007 Additional Supplemental Testimony, all utility pilot portfolios have ex-ante cost-effectiveness ratios of less than one. SCE's cost-effectiveness ratio though is the lowest at .10. This means that for every \$100 spent on the program by all parties, \$10 in benefits will be received by all parties.

SCE would like to correct the last sentence, which states that "for every \$100 spent on the program by all parties, \$10 in benefits will be received by all parties." Because of the way benefits are calculated, it should instead read: "for every \$100 spent on the program by SCE, \$10 in benefits will be received by SCE." The costs and benefits to water agencies and "all parties" are not part of the Calculator, and thus cannot be ascertained using the tool as it currently exists.

VII. CONCLUSION

SCE asks that the Commission alter the Proposed Decision to:

- allow SoCalGas to partner with SCE in the LACSD Water Conservation program.
- allow more analysis and review of the EM&V Study Plan before it is approved.
- allow the IOU's to rollout and implement programs any time after January 1, 2008, but no later than the third quarter of 2008.

SCE asks that the Commission clarify that:

- IOU's have the flexibility to use their Process Evaluation budget according to programmatic need, thus resulting in the best use of the limited 2% budget allocated to this function.
- the water-energy calculator understates the TRC benefits to all parties because it is focused on the energy side benefits to the local IOU's.

SCE appreciates the Commission's consideration of these comments to the November 15, 2007 Proposed Decision.

Respectfully submitted,

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Dated: December 5, 2007

CERTIFICATE OF SERVICE

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of COMMENTS OF SOUTHERN CALIFORNIA EDISON ON PROPOSED DECISION on all parties identified on the attached service list(s). Service was effected by one or more means indicated below:

Transmitting the copies via e-mail to all parties who have provided an e-mail address. First class mail will be used if electronic service cannot be effectuated.

Executed this **5th day of December, 2007**, at Rosemead, California.

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